

DETAILED GEOLOGICAL MAPPING RECORD TABLES

Upper Trishuli-1HEP										POSITION		Slope at entrance of ADIT NO.3		
STAKE	TUNNEL DIRECTION	ROCK TYPE	UCS	GROUND WATER	RQD	Jv	Jn	Jr	Ja	Jw	SRF	$Q = \frac{RQD}{Jn} \times \frac{Jr}{Ja} \times \frac{Jw}{SRF}$	ROCK MASS CLASS	DATE
0-4m	NW321	Mitflus Sch	60	GW1-GW4	50	19.7	3x2	4	3	1	2.5	4.4	IIIb	7/22/25
NUMBER	Occurrence		SEPARATION (m)	JOINTS GROUP		PERSISTENCE	ROUGHNESS/APPEARANCE	FILLING	WEATHER OF ROCK WALL	FAULT		UCS		
	Dip direction	Dip angle		SPACING	NUMBER					INFLUENCEDZONE (m)	NATURE			
J <sub>1</sub>	195	63	C2	SP3	4	C3	B3	F3, F4	W3			Very high		>250
J <sub>2</sub> (Plane)	275	85	C1		1	C2	R5	F5	W3			High		100-250
												medium high		50-100
												moderate		25-50
												Low		5-25
												Very low		1-5
RQD%														
												Excellent quality		90-100%
												Good quality		75-90%
												Fair quality		50-75%
												Poor quality		25-50%
												Very poor quality		<25%
GROUNDWATER CONDITION														
												GW1		Completely dry
												GW2		Damp
												GW3		Wet
												GW4		Dripping
												GW5		Flowing

SEPARATION(APERTURE)	SPACING OF JOINTS	PERSISTENCE	ROUGHNESS/APPEARANCE	FILLING		WEATHER OF ROCK WALL	FAULT NATURE
C0:Very tight <0.1mm	SP1:VERY WIDE >2m	C1:Very low <1m	R1:very rough surfaces	F1:rock sillar	F8: Breccia	W1:unweathered	FC1: downthrown fault
C1:Tight 0.1-0.5mm	SP2:WIDE:0.6-2m	C2:Low 1-3m	R2:rough surfaces	F2:rock sliver	F9: Cataclasite	W2:slightly weathered	FC2:层 upthrown fault
C2:moderately open	SP3:200-600mm	C3:medium 3-10m	R3:slightly rough surfaces	F3:rock fragments	F10: Mylonite	W3:moderately weathered	FC3:层 strike-slip fault
C3:open joints 2.5-10mm	SP4:60-200mm	C4:High 10-20m	R4:smooth surfaces	F4:rock powder	F11: Fault clay	W4:highly weathered	FC4: Crushed bedding plane (zone)
C4:Wide 10-30mm	SP5:<60mm	C5:Very high >20m	R5:slickensided surfaces	F5: Calcium film	F12: Sliced rock	W5:completely weathered	
C5:Very wide >30mm		E0: Left wall	A1: planar	F6: Calcite vein	F13: argillized seam	W6:residual soil	FC5: Alteration zone
		E1: Top wall	A2: stepped	F7: Quartz vein	F14: clay course		FC6: fault striation
		E2: Right wall	A3: undulating	F15: weak intercalated layers	F16: siltized		
				F16: Fractured zone			

RECORD: Chen Guoqiang

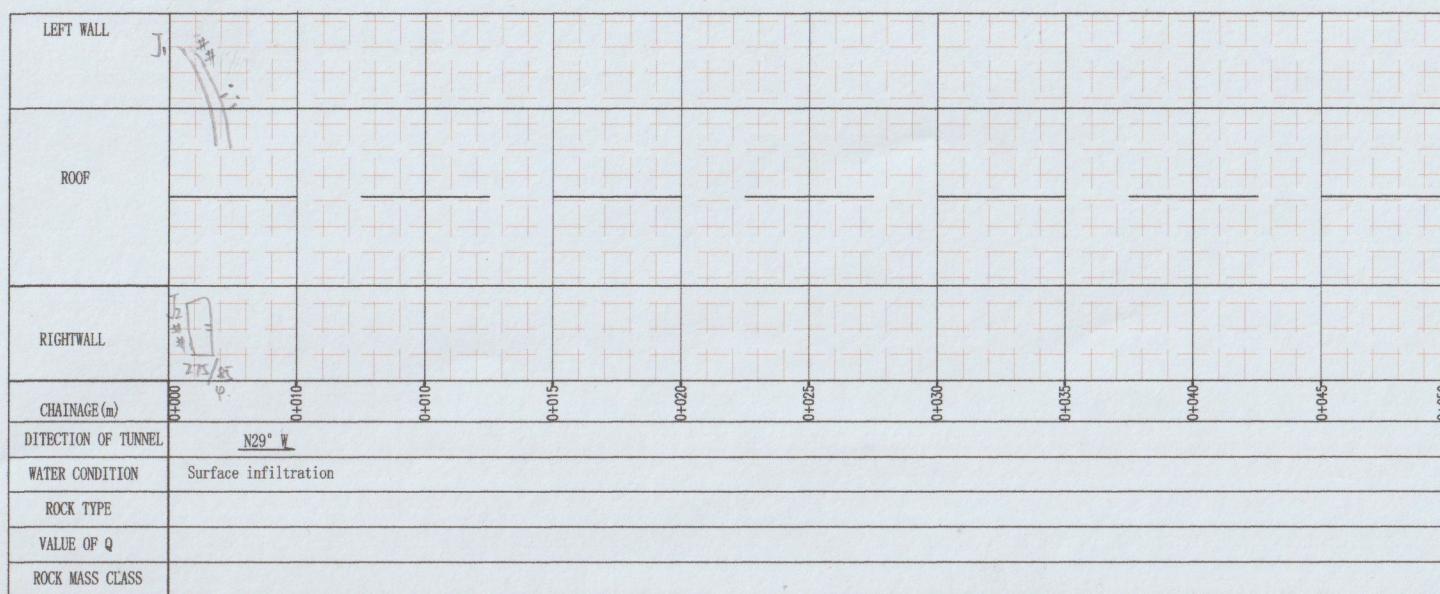
DAY 5 MONTH 2 YEAR 2022

CHECK: You Xiaowei

DAY 5 MONTH 2 YEAR 2022

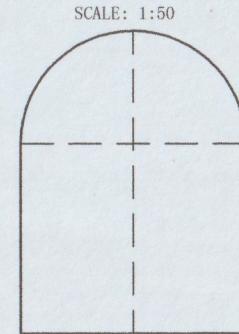
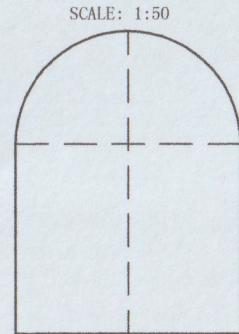
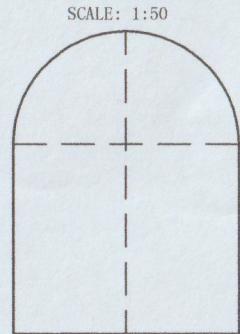
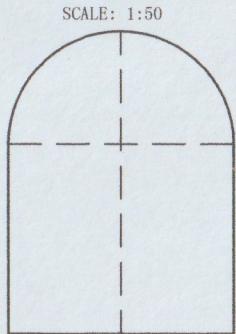
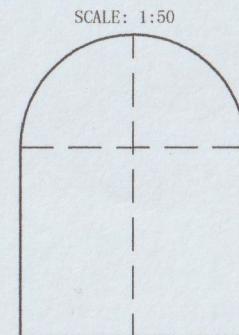
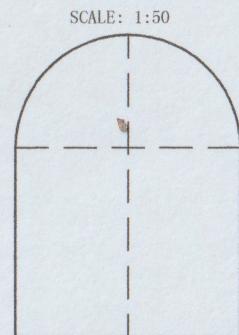
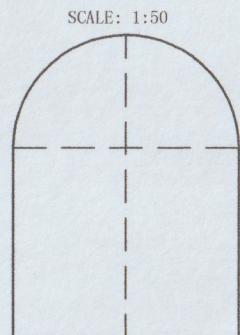
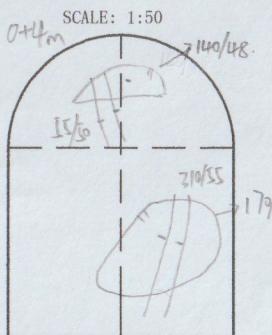
# GEOLOGICAL LOGGING MAP OF ADIT NO. 3

SCALE: 1:100



## Legend

Mi+Qu Sch	Interbedded Mica Schist and Quartz-Schist		Zone of fracture
Joint	Joint number and attitude (Dip direction/Dip)		
Steel Arch Support	Fault number and attitude (Dip direction/Dip)		
Shotcrete with mesh	Flowing		
Lithology contact line	Dripping		
Slightly weathered	Moderately weathered		



## REFERENCE DRAWINGS

### SYMBOL AND LEGEND

### FOR INFORMATION

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INDEX	DATE	DESCRIPTION	DRAWN	CHKD.	APPD.
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PROJECT TITLE  
Upper Trishuli-1 HEP (216MW)



OWNER'S ENGINEER  
TRACTEBEL ENRQ



CONTRACTOR  
Doosan Heavy Industries & Construction

DRAWING TITLE  
GEOLOGICAL LOGGING MAP OF  
VENTILATION TUNNEL

INDEX	DRAWING NUMBER	REV. NO.	SKETCH	1 OF 1
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A1 (594 x 841) NWD 1